

**IN THE CLAIMS:**

1-65. (canceled)

~~1~~66. (previously presented) An *H. pylori* bacterial strain, or an extract of an *H. pylori* bacterial strain, wherein the *H. pylori* bacterial strain has an aflagellate phenotype resulting from a mutation in the *flbA* gene of the *H. pylori* bacterial strain.

~~2~~67. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim ~~66~~ 67, wherein the *flbA* gene is able to hybridize, under conditions of stringency, with a probe corresponding to a nucleotide fragment from *H. pylori*, which has been amplified using two oligonucleotides having the following sequences:

OLF1bA-1: ATGCCTCGAGGTGCGAAAAGCAAGATG (SEQ ID NO:1),

OLF1bA-2: GAAATCTTCATACTGGCAGCTCCAGTC (SEQ ID NO:2).

~~3~~68. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim ~~66~~ 68, wherein the *flbA* gene comprises SEQ ID NO: 6.

~~4~~69. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim ~~66~~ 69, wherein the *H. pylori* bacterial strain does not express the hook protein (or anchoring protein) of the flagellum of *H. pylori*.

<sup>5</sup>  
~~70~~. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim ~~66~~<sup>1</sup>, wherein the *H. pylori* bacterial strain also lacks the flagellum sheath.

<sup>6</sup>  
~~71~~. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim ~~70~~<sup>5</sup>, wherein the *H. pylori* bacterial strain does not express the hook protein (or anchoring protein) of the flagellum of *H. pylori*.

<sup>7</sup>  
~~72~~. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim ~~66~~<sup>1</sup>, wherein the *H. pylori* bacterial strain is obtained from strain N6 having deposit Accession No. NCIMB 40512.

<sup>8</sup>  
~~73~~. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim ~~66~~<sup>1</sup>, wherein the *H. pylori* bacterial strain is strain N6flbA<sup>-</sup> having deposit Accession No. NCIMB 40747.

<sup>9</sup>  
~~74~~. (previously presented) The extract of an *H. pylori* bacterial strain according to claim ~~66~~<sup>1</sup>, wherein the bacterial extract is a total bacterial extract.

<sup>10</sup>  
~~75~~. (previously presented) The extract of an *H. pylori* bacterial strain according to claim ~~66~~<sup>1</sup>, wherein the bacterial extract is a n-octyl glucoside extract.

<sup>11</sup>~~18~~. (previously presented) The extract of an *H. pylori* bacterial strain according to claim <sup>1</sup>~~68~~, wherein the bacterial extract is obtained after extracting with PBS or glycine.

<sup>12</sup>~~11~~. (previously presented) An *H. pylori* bacterial strain, or an extract of an *H. pylori* bacterial strain, wherein the *H. pylori* bacterial strain has an aflagellate phenotype resulting from a mutation in the *flbA* gene of the *H. pylori* bacterial strain, and wherein the *H. pylori* bacterial strain does not express the FlaA and FlaB proteins.

<sup>13</sup>~~18~~. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim <sup>12</sup>~~11~~, wherein the *flbA* gene is able to hybridize, under conditions of stringency, with a probe corresponding to a nucleotide fragment from *H. pylori*, which has been amplified using two oligonucleotides having the following sequences:

OLF1bA-1: ATGCCTCGAGGTCGAAAAGCAAGATG (SEQ ID NO:1),

OLF1bA-2: GAAATCTTCATACTGGCAGCTCCAGTC (SEQ ID NO:2).

<sup>14</sup>~~19~~. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim <sup>12</sup>~~11~~, wherein the *flbA* gene comprises SEQ ID NO: 6.

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<sup>15</sup>  
~~80~~. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim <sup>12</sup>~~17~~, wherein the *H. pylori* bacterial strain does not express the hook protein (or anchoring protein) of the flagellum of *H. pylori*.

<sup>16</sup>  
~~81~~. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim <sup>12</sup>~~17~~, wherein the *H. pylori* bacterial strain also lacks the flagellum sheath.

<sup>17</sup>  
~~82~~. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim <sup>16</sup>~~81~~, wherein the *H. pylori* bacterial strain does not express the hook protein (or anchoring protein) of the flagellum of *H. pylori*.

<sup>18</sup>  
~~83~~. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim <sup>12</sup>~~17~~, wherein the *H. pylori* bacterial strain is obtained from strain N6 having deposit Accession No. NCIMB 40512.

<sup>19</sup>  
~~84~~. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim <sup>12</sup>~~17~~, wherein the *H. pylori* bacterial strain is strain N6flbA<sup>-</sup> having deposit Accession No. NCIMB 40747.

<sup>20</sup>  
~~85~~. (previously presented) The extract of an *H. pylori* bacterial strain according to claim <sup>12</sup>~~17~~, wherein the bacterial extract is a total bacterial extract.

<sup>21</sup>  
~~86.~~ (previously presented) The extract of an *H. pylori* bacterial strain  
according to claim <sup>12</sup>~~17~~, wherein the bacterial extract is a n-octyl glucoside extract.

<sup>22</sup>  
~~87.~~ (previously presented) The extract of an *H. pylori* bacterial strain  
according to claim <sup>12</sup>~~17~~, wherein the bacterial extract is obtained after extracting with PBS  
or glycine.

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